

REMARKS/ARGUMENTS

The Office Action mailed January 30, 2006, has been received and its contents carefully considered. Reconsideration and withdrawal of the outstanding rejections are respectfully requested in view of the foregoing amendments and the following remarks.

Claims 26-34 are newly added. Support for the amendments is found in the specification and claims as filed. Accordingly, the new claims 26-34 do not constitute new matter.

Claims 1-10 and 22-25 have been cancelled without prejudice. As a result, claims 11-21 and 26-34 remain pending in the present application. Reconsideration of the application in view of the foregoing amendments and following comments is respectfully requested.

Claim Rejection - 35 U.S.C. §112, Second Paragraph

With respect to Paragraphs 3 of the Office Action, the Office Action rejected claims 1-10, 22 and 25 under 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-10, 22, and 25 have been cancelled without prejudice. New claims 26-34 are added to replace claims 1-10.

With respect to the problem stated by sub-point A of point 3 of the Office Action, the original claim 1 has been revised to be more definite in new claim 26. New claim 26 has clearly defined that the weight ratio of the waterborne polyurethane is “over the composition” to be 0.05 – 0.40. The weight ratio of waterborne polyurethane in new claim 26 is substantially the same as that in original claim 1. The only difference between them is their expression ways. Therefore, the weight ratio of the waterborne polyurethane in new claim 26 does not constitute “new matter”. Hence, the problem stated by the Office Action has been eliminated.

With respect to the problem stated by sub-point B of point 3 of the Office Action, the lipophilic monomer is clearly defined to be “isocyanurate of 1,6-hexamethylene diisocyanate” in

new claim 26. This amendment is supported in all of the examples of the specification. The lipophilic monomer used in the examples 1-9 is isocyanurate of 1,6-hexamethylene diisocyanate.

Moreover, new claim 26 clearly defined that the weight ratios of the lipophilic monomer are based on “the phase-change material” and “the waterborne polyurethane” to be 0.03 – 0.12 and 0.25 – 0.5, respectively. The weight ratios of lipophilic monomer in new claim 26 are substantially the same as that in original claim 1. The only difference between them is their expression ways. Therefore, the weight ratios of lipophilic monomer in new claim 26 do not constitute “new matter”.

In new claim 26, there is no lipophilic monomer “not” dissolved in the phase-change material. Therefore, all of the lipophilic monomer related to concentration definitions in new claim 26 is dissolved in the phase-change material. This amendment is supported in second paragraph on page 6 of the specification.

With respect to the problem stated by sub-point C of point 3 of the Office Action, both original claim 1 and new claim 26 clear define that the weight ratio of the lipophilic monomer is based on “the waterborne polyurethane”, not “the waterborne polyurethane aqueous solution”.

With respect to the problem stated by sub-point D of point 3 of the Office Action, 2,2-bis (hydroxymethyl) propionic acid and diamine containing a sulfonate functional group are compounds used to prepare the waterborne polyurethane. The problem stated by the Office Action in original claim 2 is raised by typographical errors. Therefore, the specification and related claims have been amended for these typographical errors. Now, 2,2-bis (hydroxymethyl) propionic acid is correctly defined to be a monomer of the waterborne polyurethane in new claim 33. Diamine containing a sulfonate functional group is correctly defined to be a chain extender in new claim 34. These definitions of 2,2-bis (hydroxymethyl) propionic acid and diamine containing a sulfonate functional group in new claims 33 and 34 are used to make these claims more comprehensive and thus these new claims do not constitute “new matter”.

Moreover, the problem of improper Markush language used in original claim 2 has been eliminated because the original claim 2 was revised and replaced by new claims 33 and 34.

With respect to the problem stated by sub-point E of point 3 of the Office Action, the lipophilic monomer is not to be melamine or isocyanate salt as original claim 7 stated but re-defined to be isocyanurate of 1,6-hexamethylene diisocyanate in new claim 26. This amendment is supported in all of the examples of the specification. The lipophilic monomer used in the examples 1-9 is isocyanurate of 1,6-hexamethylene diisocyanate. Therefore, the problem related to the reaction of isocyanate salt is eliminated.

With respect to the problem stated by sub-point F of point 3 of the Office Action, there has been no word of “preferred” in all of the new claims now. Therefore, the problem of unclear claimed range caused by the word of “preferred” is eliminated.

With respect to the problem stated by sub-point G of point 3 of the Office Action, the original claim 22 is cancelled so the problem is eliminated.

With respect to the problem stated by sub-point H of point 3 of the Office Action, the original claims 5 and 22 with improper Markush language have been cancelled. Moreover, new claims 26 and 28 use proper Markush language. Therefore, the problem of incorrect Markush language format is eliminated.

Accordingly, applicants respectfully request that the rejection be withdrawn.

Applicant respectfully submits that no new matter has been added by this change and further submits that the Office Action’s rejection under Section 112 is overcome.

Reconsideration and withdrawal of this rejection is respectfully requested.

Claim Rejection - 35 U.S.C. §102

With respect to Paragraphs 4 and 6 of the Office Action, the Office Action rejected claims 22 and 25 under 35 U.S.C. §102(b) as being anticipated by Schaerer et al (US Pat. No. 2,523,848). Of the rejected claims, only claim 22 is independent.

Claims 22 and 25 have been cancelled without prejudice. Reconsideration and withdrawal of this rejection is respectfully requested.

Claim Rejection - 35 U.S.C. §103

With respect to Paragraphs 5 and 7 of the Office Action, the Office Action rejected claims 22 and 25 under 35 U.S.C. §103(a) as being unpatentable over Schaerer et al (US Pat. No. 2,523,848). Of the rejected claims, only claim 22 is independent.

Claims 22 and 25 have been cancelled without prejudice. Reconsideration and withdrawal of this rejection is respectfully requested.

All claims in the present application are now in condition for allowance. Early and favorable indication of allowance is courteously solicited.

Specification

With respect to the amendment of the sixth paragraph on page 5, the paragraph is amended for obvious typographical error in the description about the compounds of 2,2-bis (hydroxymethyl) propionic acid and a diamine containing a sulfonate functional group. In original specification, readers are easy to be misled that these compounds are equivalent to waterborne polyurethane, which departs from what the original specification really want to state. What the original specification wants to state is that the waterborne polyurethane is constituted or prepared by these compounds. Therefore, the description of these compounds is corrected and revised to increase its comprehensive. In amended description, 2,2-bis (hydroxymethyl) propionic acid is a monomer and a diamine containing a sulfonate functional group is a chain extender, which is well known by a person skilled in the art.

Besides, the paragraph is further amended to clearly indicate what the weight ratio of waterborne polyurethane is over. The amended description of the weight ratio of waterborne polyurethane is substantial the same as that of the description in original specification. The

difference between them is the expression way. Thus, the amended description does not constitute “new matter”.

With respect to the amendment of the third paragraph on page 6, the lipophilic monomer in the paragraph is amended to be isocyanurate of 1,6-hexamethylene diisocyanate, which is supported in all of the examples of the specification. The lipophilic monomer used in the examples 1-9 is isocyanurate of 1,6-hexamethylene diisocyanate. Hence, this amendment does not constitute “new matter”.

The paragraph is further amended to clearly indicate what the weight ratios of the lipophilic monomer are over. The amended description of the weight ratio of the lipophilic monomer is substantial the same as that of the description in original specification. The difference between them is the expression way. Thus, the amended description does not constitute “new matter”.

With respect to the amendment of the fourth paragraph on page 9, the paragraph is amended for “obvious grammatical error”. The sentence of “the temperature of the composition is not elevated at a rate of 10 degrees per hour until the temperature is 90 degrees Celsius” should be “the temperature of the composition is elevated at a rate of 10 degrees per hour until the temperature is 90 degrees Celsius” to give correct meaning.

With respect to the amendment of the second paragraph on page 13, the paragraph is amended for “obvious grammatical error”. The sentence of “the temperature of the composition is not elevated at a rate of 10 degrees per hour until the temperature is 90 degrees Celsius” should be “the temperature of the composition is elevated at a rate of 10 degrees per hour until the temperature is 90 degrees Celsius” to give correct meaning.

With respect to the amendment of the third paragraph on page 14, the paragraph is amended for obvious typographical error. The original specification want to state is two things. One is the microcapsule can be fabricated while organic solvent exits. The other is the waterborne polyurethane can be used as a surfactant. Because of typographical error causing

some words lack therein, readers hardly understand the meaning from the original paragraph. Therefore, the paragraph is revised to express more clearly.

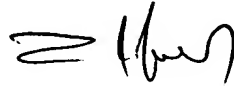
Conclusions

For all of the above reasons, applicants submit that the specification and claims are now in proper form, and that the claims define patentably over prior arts. Therefore, applicants respectfully request issuance for this case at the Office Action's earliest convenience. Should the Examiner believe that a telephone conference would be helpful in expediting prosecution of the application; the Examiner is invited to telephone the undersigned at 202-861-1696.

In the event this paper is not timely filed, Applicant petitions for an appropriate extension of time. Please charge any fee deficiencies or credit any overpayments to Deposit Account No. 50-2036 with reference to Attorney Docket No. 87391.0200.

Respectfully submitted,

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